



RF EXPOSURE EVALUATION DOCUMENT

For WPT(wireless Power Transfer)

Applicant : SAMSUNG ELECTRONICS CO., LTD.
129 SAMSUNG-RO, YEONGTONG-GU, SUWON-SI,
GYEONGGI-DO, 16677, KOREA

Model : SM-N985F/DS, SM-N985F

FCC ID : A3LSMN985F

EUT Description : GSM/WCDMA/LTE Phone + BT/BLE, DTS/UNII a/b/g/n/ac/ax,
UWB, WPT and NFC

Test Standard(s) : FCC 47 CFR PART 15 SUBPART C

Date Of Issue:

July 02, 2020

Prepared by:

UL Korea, Ltd.

26th floor, 152, Teheran-ro, Gangnam-gu Seoul, 06236, Korea

Suwon Test Site: UL Korea, LTD. Suwon Laboratory

218 Maeyeong-ro, Yeongtong-gu

Suwon-si, Gyeonggi-do, 16675, Korea

TEL: (031) 337-9902

FAX: (031) 213-5433



1. TEST PROCEDURE

Per FCC Guidance, WPT function was evaluated for portable exposure condition.

2. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 218 Maeyeong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16675, Korea. Line conducted emissions are measured only at the 218 address. The following table identifies which facilities were utilized for radiated emission measurements documented in this report. Specific facilities are also identified in the test results sections.

218 Maeyeong-ro
<input checked="" type="checkbox"/> Shield Room

UL Korea, Ltd. is accredited by IAS, Laboratory Code TL-637. The full scope of accreditation can be viewed at <https://www.iasonline.org/wp-content/uploads/2017/05/TL-637-cert-New.pdf>.

3. INFORMATION OF EQUIPMENT UNDER TEST

Information	
Operating frequency [MHz]	0.594
Maximum output power [mW]	50
Charging type	Inductive wireless power transfer
Operating duty factor	0.33

4. TEST EQUIPMENT

Test equipment list					
Description	Manufacturer	Model	Serial Number	Cal. Date	Cal. Due
Electric and Magnetic Field Probe	Narda	EHP-200AC	170WX91008	03/02/20	03/02/21



5. MEASUREMENT RESULT

5.1. H-field measurement results of EUT's 6 sides

Distance	H-field measurement [A/m]					
	Rear	Front	Edge.1	Edge.2	Edge.3	Edge.4
0cm	1.0322	0.2144	0.0551	0.0377	0.0255	0.4945

5.2. H-field measurement results for 0cm to 10cm at Rear side.

Distance [cm]	H-field meas. [A/m]	H-field x (duty factor) [A/m]	FCC Limit [A/m]
0	1.0322	0.3441	1.63
1	0.5634	0.1878	
2	0.2847	0.0949	
3	0.1883	0.0628	
4	0.1239	0.0413	
5	0.0703	0.0234	
6	0.0492	0.0164	
7	0.0296	0.0099	
8	0.0263	0.0088	
9	0.0212	0.0071	
10	0.0152	0.0051	

5.3. Corrected H-field measurement

Operating duty factor is based on Averaging time of §1.1310 table 1.

- $1.0322 \text{ A/m} \times 0.33 = 0.3441 \text{ A/m}$

END OF EVALUATION DOCUMENT